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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/217,347	12/21/1998	JOHN G. FIJOLEK	98666	8453

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EXAMINER

KOENIG, ANDREW Y

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 07/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/217,347

Applicant(s)

FIJOLEK ET AL.

Examiner

Andrew Y Koenig

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7,8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1. The applicant argues that DOCSIS does not expressly or inherently describe the concept of using deferred inactive identifiers, creating a service session profile to including the deferred inactive service identifiers, and using the service session profile and the deferred inactive service identifier to activate the desired service at a later time. The examiner disagrees. Whereas, DOCSIS is silent on specifically disclosing the claimed "deferred inactive service identifiers", per se. DOCSIS teaches using the service identifiers (SIDs) assigned during the registration process for requesting bandwidth for communications (pg. 58, para. 1); a deferred inactive SID must be used in order to allow the CMTS to assign the bandwidth to the appropriate cable modem (CM). Accordingly, the DOCSIS teaches using a service identifier to activate a service not concurrently activated, wherein the activation occurs after the registration process, which equates to deferred limitation.
2. Upon sending a message requesting bandwidth, the headend may grant or deny the request, however, assuming the CMTS grants access. The CMTS must manage the appropriated bandwidth for the cable modem, thereby inherently creating a service session profile. DOCSIS explicitly teaches using burst profiles (see 4.2.6. on page 26), which manages the bandwidth assignments for the cable modems as controlled via the CMTS, which reads on the claimed service session profile. The CMTS allocates upstream bandwidth (see. 6.3.2.3), which contains the SIDs (see figures 6-18, 1-19). The use of SIDs from above is applied in the same situation.

3. As described above, DOCSIS clearly teaches using the service session profiles and the deferred inactive service identifiers to activate the desired service at a later time, in order to support dynamic bandwidth allocations.
4. The applicants argue that DOCSIS does not describe the concept of providing dynamic services uses a deferred inactive service identifier. As described in the previous arguments above, DOCSIS teaches dynamic bandwidth allocation in order to accommodate the needs a plurality of cable modems and making efficient use of the available bandwidth by allocating unused bandwidth to requesting modems.
5. The applicant reiterates the same arguments of DOCSIS failing to teach a deferred inactive service identifier, as it pertains to each of the claims. See the discussion above.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1-8, 10-17, 20-22, and 24-30 are rejected under 35 U.S.C. 102(a) as being anticipated by Data-Over-Cable Service Interface Specification (DOCSIS) Radio Frequency Interface Specification (SP-RFI-I04-980724).

Regarding claim 1, DOCSIS teaches a data-over-cable system with a plurality of network devices, as shown in fig. 1-2. DOCSIS teaches a registration request (claimed

Art Unit: 2611

first message) transmitted from the cable modem (claimed first network device), which is received by the cable modem termination system, hereinafter CMTS (claimed second network device) (pg. 76-77). DOCSIS shows the registration request including a plurality of service parameters, such as Downstream Frequency Configuration Setting, and Upstream Channel ID Setting, etc (pg. 77). DOCSIS teaches a CMTS creating a registration response message in response to a received registration request (pg. 78, para. 2). Clearly, the CMTS extracts the service parameters from the registration request message in order to appropriately respond to the requests (pg. 79). Clearly, DOCSIS creates a service session profile for the desired service, such as assigning a downstream frequency, or an upstream channel ID to the cable modem, in order to communicate effectively between the CMTS and cable modem. DOCSIS teaches a registration response message with the corresponding service parameters with a MAC service ID (fig. 6-27), where the MAC header activates the service at the cable modem. DOCSIS teaches returning the MAC service ID to the cable modem in the registration response (pg. 78).

Regarding claims 2, 13, 21, 25, 27, and 30, DOCSIS is silent on storing instructions on a computer readable medium for execution by a CPU. Clearly, the method as taught by DOCSIS is implemented using a computer readable medium for causing a CPU to execute in order to efficiently process the data and instructions.

Regarding claims 3 and 14, DOCSIS teaches a first network device as a cable modem and a second network device cable modem termination system (pg. 76. para. 7-8).

Regarding claims 4, 15, and 22, DOCSIS teaches a SID, which reads on an inactive service identifier as a Medium Access Control (MAC) Protocol Service identifier (fig. 6-27).

Regarding claims 5 and 16, DOCSIS teaches a service parameter of class-of-service (pg. 47, sect. 6.1.1).

Regarding claim 6, DOCSIS teaches the first message as a registration request (claimed registration) and a second message as a registration response (pg. 76, 78).

Regarding claim 7, DOCSIS teaches the registration response encoded in Type-Length-Value (TLV) format (fig. 6-27).

Regarding claims 8 and 24, DOCSIS teaches service IDs to support RSVP and RTP protocols, which activate a desired service (pg. 47, sect. 6.1.2.3). The CM requests service from the CMTS to activate RSVP (pg. 121, sect. 9.2.2). The service device located at the CMTS initiates the service (pg. 121, sect. 9.2.2, step 5). As mentioned in the specification, DOCSIS "assumes that the reservation message is accepted by the CMTS." DOCSIS teaches activating the desired service using the SID (pg. 121, step 6), thereby changing the deferred inactive SID into an active SID (pg. 121, step 7). Clearly, a service event is associated with the request in order to forward the necessary packets between devices (pg. 122, step 8).

Regarding claims 10 and 17, DOCSIS teaches authorization and authentication (pg. 108, sect. 7.2.10)

Regarding claims 11, 20, and 26, DOCSIS teaches the use of both dynamic service addition and deletion messages, sent to activate and deactivate services (pg.

121, sect. 9.2.2.) DOCSIS teaches the CM sending a RSPV Path message to the CMTS (pg. 121, step 1), which would deactivate the service. The CMTS deactivates the service and changes the active SID to an inactive SID via the Dynamic service deletion message (pg. 121, steps 5-6). Clearly, a service event is associated with the deactivation request in order to terminate the service (pg. 122, sect. 9.2.2).

Regarding claims 12, 28, and 29, the limitations of claims 12 and 28 have been addressed in the discussion of claims 1, 8 and 11.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Data-Over-Cable Service Interface Specification (DOCSIS) Radio Frequency Interface Specification (SP-RFI-I04-980724).

Regarding claims 9 and 18, DOCSIS is silent on teaches a Remote Authentication Dial In User Server (RADIUS). Official Notice is taken that a RADIUS is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify DOCSIS RF spec by using a

RADIUS in order to support Dial In connections for the users thereby supporting multiple interfaces.

10. Claims 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Data-Over-Cable Service Interface Specification (DOCSIS) Radio Frequency Interface Specification (SP-RFI-I04-980724) in view of U.S. Patent 6,337,858 to Petty et al.

Regarding claims 19 and 23, DOCSIS teaches RSVP and RTP protocols, which enable a variety of class of service options, such as peak data rate, etc (pg. 121, sect. 9.2.2). Petty teaches using Voice over Internet Protocol (VoIP) (col. 5, ll. 60-62) via cable modems (col. 6, ll. 21-22). Furthermore, Petty teaches call requests as shown in figures 6-10. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify DOCSIS by supporting VoIP as taught by Petty in order to enable the user to have phone conversations without using the Plain Old Telephone Service (POTS) system.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not


Art Unit: 2611

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y Koenig whose telephone number is (703) 306-0399. The examiner can normally be reached on M-Th (7:30 - 6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on (703) 305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.


ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

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July 13, 2002